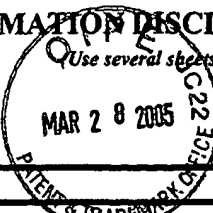


<b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary) 	Docket number (Optional) <b>15436.442.6</b>	Application Number <b>10/781,446</b>
	Applicant(s) <b>Bo Su Chen</b>	
	Filing Date <b>02/17/2004</b>	Group Art Unit <b><del>2874</del> 2883</b>

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>[Signature]</i>		6,536,959	03/2003	Kuhn, et al.			
<i>[Signature]</i>		3,271,631	09/1966	J. C. Marinace			
<i>[Signature]</i>		3,936,742	02/1976	Krause			
<i>[Signature]</i>		4,408,871	10/1983	Kojima			
<i>[Signature]</i>		4,490,618	12/1984	Cielo			
<i>[Signature]</i>		4,678,269	07/1987	Pace			
<i>[Signature]</i>		4,681,414	07/1987	Hershet			
<i>[Signature]</i>		4,755,036	07/1988	Suzuki, et al.			
<i>[Signature]</i>		4,765,703	08/1988	Suzuki, et al.			
<i>[Signature]</i>		4,816,912	03/1989	Suzuki, et al.			
<i>[Signature]</i>		4,818,058	04/1995	Bonanni			
<i>[Signature]</i>		4,829,537	05/1989	Baer			
<i>[Signature]</i>		4,842,390	06/1989	Sottini, et al.			
<i>[Signature]</i>		4,894,785	01/1990	Fernandes			
<i>[Signature]</i>		4,935,029	06/1990	Matsutani, et al.			
<i>[Signature]</i>		4,943,128	07/1990	Takada, et al.			
<i>[Signature]</i>		4,976,727	12/1990	Matsutani, et al.			
<i>[Signature]</i>		5,001,323	03/1991	Matsutani, et al.			
<i>[Signature]</i>		5,029,101	07/1991	Fernandes			
<i>[Signature]</i>		5,029,973	07/1991	Rink			
<i>[Signature]</i>		5,047,076	09/1991	Cagnolato, et al.			
<i>[Signature]</i>		5,170,406	12/1992	Tidwell			
<i>[Signature]</i>		5,312,398	05/1994	Hobart, et al.			
<i>[Signature]</i>		5,354,323	10/1994	Whitebook			
<i>[Signature]</i>		5,400,145	03/1995	Suita, et al.			
<i>[Signature]</i>		5,402,258	03/1995	Murakami, et al.			
<i>[Signature]</i>		5,404,869	04/1995	Parkyn, Jr., et al.			
<i>[Signature]</i>		5,414,600	05/1995	Strobl, et al.			
<i>[Signature]</i>		5,415,652	05/1995	Mueller, et al.			
<i>[Signature]</i>		5,430,634	07/1995	Baker, et al.			
<i>[Signature]</i>		5,458,594	10/1995	Mueller, et al.			
<i>[Signature]</i>		5,467,104	11/1995	Burnes, III et al.			

EXAMINER

*Ryan J. Galt*

DATE CONSIDERED

*6/21/05*

EXAMINER: Initial of citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	Docket number (Optional)	Application Number
	15436.442.6	10/781,446
	Applicant(s)	
	Bo Su Chen	
Filing Date	Group Art Unit	
02/17/2004	2874 2883	

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>h</i>		5,470,314	11/1995	Walimsky			
<i>R</i>		5,491,344	02/1996	Kenny, et al.			
<i>h</i>		5,495,576	02/1996	Ritchey			
<i>R</i>		5,509,095	04/1996	Baker, et al.			
<i>h</i>		5,530,709	06/1996	Waarts, et al.			
<i>h</i>		5,577,492	11/1996	Parkyn, Jr. et al.			
<i>h</i>		5,594,752	01/1997	Endriz			
<i>h</i>		5,596,339	01/1997	Furness, III et al.			
<i>R</i>		5,600,126	02/1997	Appel, et al.			
<i>h</i>		5,613,769	03/1997	Parkyn, Jr. et al.			
<i>h</i>		5,659,327	08/1997	Furness, III et al.			
<i>h</i>		5,676,453	10/1997	Parkyn, Jr. et al.			
<i>h</i>		5,677,920	10/1997	Waarts, et al.			
<i>h</i>		5,773,817	06/1998	Kingsley, et al.			
<i>h</i>		5,777,342	07/1998	Baer			
<i>h</i>		5,790,576	08/1998	Waarts, et al.			
<i>h</i>		5,793,783	08/1998	Endriz			
<i>h</i>		5,799,543	09/1998	Nagai, et al.			
<i>h</i>		5,802,092	09/1998	Endriz			
<i>h</i>		5,806,955	09/1998	Parkyn, Jr. et al.			
<i>R</i>		5,832,055	11/1998	Dewaele			
<i>h</i>		5,836,667	11/1998	Baker, et al.			
<i>h</i>		5,861,995	01/1999	Gordon			
<i>h</i>		5,866,911	02/1999	Baer			
<i>h</i>		5,936,777	08/1999	Dempewolf			
<i>h</i>		5,952,668	09/1999	Baer			
<i>h</i>		5,993,466	11/1999	Yoon			
<i>h</i>		5,993,467	11/1999	Yoon			
<i>h</i>		5,998,215	12/1999	Prather, et al.			
<i>h</i>		6,008,781	12/1999	Furness, III et al.			
<i>h</i>		6,075,650	06/2000	Morris, et al.			
<i>h</i>		6,139,517	10/2000	Macoviak			

EXAMINER	DATE CONSIDERED
<i>Page 1846</i>	<i>6/21/05</i>

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<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	Docket number (Optional) <b>15436.442.6</b>	Application Number <b>10/781,446</b>
	Applicant(s) <b>Bo Su Chen</b>	
	Filing Date <b>02/17/2004</b>	Group Art Unit <b>2874 2883</b>

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>Mr</i>		6,160,916	12/2000	Horiuchi			
<i>Mr</i>		6,186,648	02/2001	Baker, et al.			
<i>Mr</i>		6,222,864	04/2001	Waarts, et al.			
<i>Mr</i>		6,254,563	07/2001	Macoviak, et al.			
<i>Mr</i>		6,259,104	07/2001	Baer			
<i>Mr</i>		6,317,103	11/2001	Furness, III et al.			
<i>Mr</i>		6,324,326	11/2001	Dejneka, et al.			
<i>Mr</i>		6,349,159	02/2002	Uebbing, et al.			
<i>Mr</i>		6,356,572	03/2002	Tanaka, et al.			
<i>Mr</i>		6,366,338	04/2002	Masubuchi, et al.			
<i>Mr</i>		6,410,213	06/2002	Raguin, et al.			
<i>Mr</i>		6,411,835	06/2002	Modell, et al.			
<i>Mr</i>		4,317,085	02/23/1982	Brunham, et al.			
<i>Mr</i>		4,466,694	08/21/1984	MacDonald			
<i>Mr</i>		4,660,207	04/21/1987	Svilans			
<i>Mr</i>		4,675,058	06/23/1987	Plaster			
<i>Mr</i>		4,784,722	11/15/1988	Liau, et al.			
<i>Mr</i>		4,885,592	12/05/1989	Kofol, et al.			
<i>Mr</i>		4,901,327	02/13/1990	Bradley			
<i>Mr</i>		4,943,970	07/24/1990	Bradley			
<i>Mr</i>		4,956,844	09/11/1990	Goodhue, et al.			
<i>Mr</i>		5,031,187	07/09/1991	Orenstein, et al.			
<i>Mr</i>		5,052,016	09/24/1991	Mahbobzadeh			
<i>Mr</i>		5,056,098	10/08/1991	Anthony, et al.			
<i>Mr</i>		5,062,115	10/29/1991	Thornton			
<i>Mr</i>		5,068,869	11/26/1991	Wang, et al.			
<i>Mr</i>		5,079,774	01/07/1992	Mendez, et al.			
<i>Mr</i>		5,115,442	05/19/1992	Lee, et al.			
<i>Mr</i>		5,117,469	05/26/1992	Cheung, et al.			
<i>Mr</i>		5,140,605	08/18/1992	Paoli, et al.			
<i>Mr</i>		5,157,537	10/20/1992	Rosenblatt, et al.			
<i>Mr</i>		5,158,908	10/27/1992	Blonder, et al.			

EXAMINER <i>Ryan Sp86</i>	DATE CONSIDERED <i>6/2/04</i>
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EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	Docket number (Optional) <b>15436.442.6</b>	Application Number <b>10/781,446</b>
	Applicant(s) <b>Bo Su Chen</b>	
	Filing Date <b>02/17/2004</b>	Group Art Unit <b>2874 2883</b>

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>Ch</i>		5,212,706	05/18/1993	Jain			
<i>Ch</i>		5,216,263	06/01/1993	Paoli			
<i>Ch</i>		5,216,680	06/01/1993	Magnusson, et al.			
<i>Ch</i>		5,237,581	08/17/1993	Asada, et al.			
<i>Ch</i>		5,245,622	09/14/1993	Jewell, et al.			
<i>Ch</i>		5,258,990	11/02/1993	Olbright, et al.			
<i>Ch</i>		5,262,360	11/16/1993	Holonyak, Jr. et al.			
<i>Ch</i>		5,285,466	02/08/1994	Tabatabaie			
<i>Ch</i>		5,293,392	03/08/1994	Shieh, et al.			
<i>Ch</i>		5,317,170	05/31/1994	Paoli			
<i>Ch</i>		5,317,587	05/31/1994	Ackley, et al.			
<i>Ch</i>		5,325,386	06/28/1994	Jewell, et al.			
<i>Ch</i>		5,331,654	07/19/1994	Jewell, et al.			
<i>Ch</i>		5,337,074	08/09/1994	Thornton			
<i>Ch</i>		5,337,183	08/09/1994	Rosenblatt, et al.			
<i>Ch</i>		5,349,599	09/20/1994	Larkins			
<i>Ch</i>		5,351,256	09/27/1994	Schneider, et al.			
<i>Ch</i>		5,359,447	10/25/1994	Hahn, et al.			
<i>Ch</i>		5,359,618	10/25/1994	Lebby, et al.			
<i>Ch</i>		5,363,397	11/08/1994	Collins, et al.			
<i>Ch</i>		5,373,520	12/13/1994	Shoji, et al.			
<i>Ch</i>		5,373,522	12/13/1994	Holonyak, Jr., et al.			
<i>Ch</i>		5,376,580	12/27/1994	Kish, et al.			
<i>Ch</i>		5,386,426	01/31/1995	Stephens			
<i>Ch</i>		5,390,209	02/14/1995	Vakhshoori			
<i>Ch</i>		5,396,508	03/17/1995	Bour, et al.			
<i>Ch</i>		5,404,373	04/04/1995	Cheng			
<i>Ch</i>		5,412,678	05/02/1995	Treat, et al.			
<i>Ch</i>		5,412,680	05/02/1995	Swirham, et al.			
<i>Ch</i>		5,416,044	05/16/1995	Chino, et al.			
<i>Ch</i>		5,428,634	06/27/1995	Bryan, et al.			
<i>Ch</i>		5,438,584	08/01/1995	Paoli, et al.			

EXAMINER <i>Ryan J. Gabe</i>	DATE CONSIDERED <i>6/24/05</i>
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U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		5,446,754	08/29/1995	Jewell, et al.			
		5,465,263	11/07/1995	Bour, et al.			
		5,475,701	12/12/1995	Hibbs-Brenner			
		5,493,577	02/1996	Choquette, et al.			
		5,497,390	03/05/1996	Tanaka, et al.			
		5,513,202	04/30/1996	Kobayashi, et al.			
		5,530,715	06/25/1996	Shieh, et al.			
		5,555,255	09/10/1996	Kock, et al.			
		5,557,626	09/17/1996	Grodinski, et al.			
		5,561,683	10/01/1996	Kwon			
		5,567,980	10/22/1996	Holonyak, Jr. et al.			
		5,568,498	10/22/1996	Nilsson			
		5,568,499	10/22/1996	Lear			
		5,574,738	11/12/1996	Morgan			
		5,581,571	12/1996	Holonyak, Jr. et al.			
		5,586,131	12/17/1996	Ono, et al.			
		5,590,145	12/31/1996	Nitta			
		5,598,300	01/28/1997	Magnusson, et al.			
		5,606,572	02/25/1997	Swirhun, et al.			
		5,625,729	04/29/1997	Brown			
		5,642,376	06/24/1997	Olbright, et al.			
		5,645,462	07/08/1997	Banno, et al.			
		5,646,978	07/08/1997	Kem, et al.			
		5,648,978	07/15/1997	Sakata			
		5,679,963	10/21/1997	Klem, et al.			
		5,692,083	11/25/1997	Bennett			
		5,696,023	12/09/1997	Holonyak, Jr., et al.			
		5,699,373	12/16/1997	Uchida, et al.			
		5,712,188	01/27/1998	Chu, et al.			
		5,726,805	03/10/1998	Kaushik, et al.			
		5,727,013	03/10/1998	Botez, et al.			
		5,727,014	03/10/1998	Wang, et al.			
EXAMINER		DATE CONSIDERED					
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	Applicant(s) <b>Bo Su Chen</b>	
	Filing Date <b>02/17/2004</b>	Group Art Unit <b>2874 2883</b>

U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>W</i>		5,774,487	06/30/1998	Morgan			
<i>W</i>		5,778,018	07/07/1998	Yoshikawa, et al.			
<i>W</i>		5,781,575	07/14/1998	Nilsson			
<i>W</i>		5,784,399	07/21/1998	Sun			
<i>W</i>		4,790,733	08/04/1998	Smith, et al.			
<i>W</i>		5,805,624	09/08/1998	Yang, et al.			
<i>W</i>		5,818,066	10/06/1998	Duboz			
<i>W</i>		5,828,684	10/27/1998	Van de Walle			
<i>W</i>		5,838,705	11/17/1998	Shieh, et al.			
<i>W</i>		5,838,715	11/17/1998	Corzine, et al.			
<i>W</i>		5,892,784	04/16/1999	Tan, et al.			
<i>W</i>		5,892,727	04/06/1999	Tan, et al.			
<i>W</i>		5,896,408	04/20/1999	Corzine, et al.			
<i>W</i>		5,901,166	05/04/1999	Nitta, et al.			
<i>W</i>		5,903,588	05/1999	Guenter, et al.			
<i>W</i>		5,903,589	05/1999	Jewell			
<i>W</i>		5,903,590	05/11/1999	Hadley, et al.			
<i>W</i>		5,908,408	06/1999	McGary, et al.			
<i>W</i>		5,936,266	08/10/1999	Holonyak, Jr. et al.			
<i>W</i>		5,940,422	08/17/1999	Johnson			
<i>W</i>		5,953,362	09/14/1999	Pamulapati, et al.			
<i>W</i>		5,978,401	11/02/1999	Morgan			
<i>W</i>		5,978,408	11/1999	Thornton			
<i>W</i>		5,995,531	11/30/1999	Gaw, et al.			
<i>W</i>		6,002,705	12/14/1999	Thornton			
<i>W</i>		6,008,675	12/28/1999	Handa			
<i>W</i>		6,014,395	01/11/2000	Jewell			
<i>W</i>		6,043,104	03/28/2000	Uchida, et al.			
<i>W</i>		6,046,065	04/04/2000	Goldstein, et al.			
<i>W</i>		6,055,262	04/25/2000	Cox, et al.			
<i>W</i>		6,052,398	04/18/2003	Brillouet, et al.			
<i>W</i>		6,060,743	05/09/2000	Sugiyama, et al.			
EXAMINER	<i>Ryan J. L. 106</i>		DATE CONSIDERED <i>6/26/05</i>				

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>Dr</i>		6,078,601	06/20/2000	Smith			
<i>Dr</i>		6,086,263	07/11/2000	Selli, et al.			
<i>Dr</i>		6,133,590	10/17/2000	Ashley, et al.			
<i>Dr</i>		6,144,682	11/07/2000	Sun			
<i>Dr</i>		6,154,480	11/28/2000	Magnusson, et al.			
<i>Dr</i>		6,185,241	02/06/2001	Sun			
<i>Dr</i>		6,191,890	02/20/2001	Baets, et al.			
<i>Dr</i>		6,208,681	03/27/2001	Thorton			
<i>Dr</i>		6,212,312	04/03/2001	Grann, et al.			
<i>Dr</i>		6,238,944	05/29/2001	Floyd			
<i>Dr</i>		6,269,109	07/31/2001	Jewell			
<i>Dr</i>		6,297,068	10/02/2001	Thornton			
<i>Dr</i>		6,302,596	10/16/2001	Cohen, et a.			
<i>Dr</i>		6,339,496	01/15/2002	Koley, et al.			
<i>Dr</i>		6,369,403	04/09/2002	Holonyak, Jr.			
<i>Dr</i>		6,372,533	04/16/2002	Jayaraman, et al.			
<i>Dr</i>		6,392,257	05/21/2002	Ramdani, et al.			
<i>Dr</i>		6,410,941	06/25/2002	Taylor, et al.			
<i>Dr</i>		6,411,638	06/25/2002	Johnson, et al.			
<i>Dr</i>		6,427,066	07/30/2002	Grube			
<i>Dr</i>		6,455,879	09/24/2002	Ashley, et al.			
<i>Dr</i>		6,459,709	10/01/2002	Lo, et al.			
<i>Dr</i>		6,459,713	10/01/2002	Jewell			
<i>Dr</i>		6,462,360	10/08/2002	Higgins, Jr. et al.			
<i>Dr</i>		6,472,694	10/29/2002	Wilson, et al.			
<i>Dr</i>		6,477,285	11/05/2002	Shanley			
<i>Dr</i>		6,487,230	11/26/2002	Boucart, et al.			
<i>Dr</i>		6,487,231	11/26/2002	Boucart, et al.			
<i>Dr</i>		6,490,311	12/03/2002	Boucart, et al.			
<i>Dr</i>		6,493,371	12/10/2002	Boucart, et al.			
<i>Dr</i>		6,493,372	12/10/2002	Boucart, et al.			
<i>Dr</i>		6,493,373	12/10/2002	Boucart, et al.			
EXAMINER <i>Ryan Jg 86</i>		DATE CONSIDERED <i>6/21/05</i>					
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U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>[Signature]</i>		6,496,621	12/17/2002	Kathman, et al.			
<i>[Signature]</i>		6,498,358	12/24/2002	Lach, et al.			
<i>[Signature]</i>		6,501,973	12/31/2002	Foley, et al.			
<i>[Signature]</i>		6,515,308	02/04/2003	Kneissl, et al.			
<i>[Signature]</i>		6,535,541	03/18/2003	Boucart, et al.			
<i>[Signature]</i>		6,542,531	04/01/2003	Sirbu, et al.			
<i>[Signature]</i>		6,567,435	05/20/2003	Scott, et al.			
<i>[Signature]</i>		6,536,959	03/25/2003	Kuhn, et al.			

U.S. PATENT APPLICATION PUBLICATIONS							
*EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<i>[Signature]</i>		2001/0004414	06/21/2001	Kuhn, et al.			
<i>[Signature]</i>		2003/0072526	04/17/2003	Kathman, et al.			

FOREIGN PATENT DOCUMENTS								
	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
							YES	NO
<i>[Signature]</i>		JP 60123084	01/07/1985	JP			Abstract	
<i>[Signature]</i>		EP 0288184 A2	10/26/1988	EP				
<i>[Signature]</i>		JP 02054981	02/23/1990	JP			Abstract	
<i>[Signature]</i>		JP 5299779	11/12/1993	JP			Abstract	
<i>[Signature]</i>		DE 4240706 A1	06/09/1994	DE			Abstract	
<i>[Signature]</i>		EP 0776076 A1	05/28/1997	EP			Abstract	
<i>[Signature]</i>		WO 98/57402	12/17/1998	PCT				

EXAMINER <i>[Signature]</i>	DATE CONSIDERED <i>6/21/05</i>
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<b>INFORMATION DISCLOSURE CITATION</b> <i>(Use several sheets if necessary)</i>	Docket number (Optional) <b>15436.442.6</b>	Application Number <b>10/781,446</b>
	Applicant(s) <b>Bo Su Chen</b>	
	Filing Date <b>02/17/2004</b>	Group Art Unit <b>2874 2983</b>

*Examiner Initial	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
R	Banwell, et al., "VCSE Laser Transmitters for Parallel Data Links," <u>IEEE Journal of Quantum Electronics</u> , Vol. 29, No. 2, February 1993, pp. 635-644.
R	Bowers, et al., "Fused Vertical Cavity Lasers with Oxide Aperture," Final Report for MICRO Project 96-042, Industrial Sponsor: Hewlett Packard, 4 pages, 1996-97.
R	Catchmark, et al., "High Temperature CONFIGURATION WIZARD Operation of Vertical Cavity Top Surface-Emitting Lasers," CLEO 1993, p. 138
R	Chemla, et al., "Nonlinear Optical Properties of Semiconductor Quantum Wells," <u>Optical Nonlinearities and Instabilities in Semiconductors</u> , Academic Press, Inc., Copyright 1988, pp. 83-120.
R	Choe, et al., "Lateral Oxidation of AlAs Layers at Elevated Water Vapor Pressure Using a Closed-Chamber System," Letter to the Editor, Semiconductor Science Technology, 15, August 2000, pp. L35-L38.
R	Choa, et al., "High-Speed Modulation of Vertical-Cavity Surface-Emitting Lasers," <u>IEEE Photonics Technology Letter</u> , Vol. 3, No. 8, August 1991, pp. 697-699.
R	Choquette, et al., "High Single Mode Operation from Hybrid Ion Implanted/Selectively Oxidized VCSELs," 200 IEEE 17 <sup>th</sup> International Semiconductor Laser Conference, Monterrey, CA pp. 59-60.
R	Choquette, et al., "Lithographically-Defined Gain Apertures within Selectively Oxidized VCSELs," Paper CtuL6, Conference on Lasers and Electro-Optics, San Francisco, California (2002).
R	Choquette, et al., "VCSELs in Information Systems: 10Gbps <sup>-1</sup> Oxide VCSELs for Data Communication," Optics in Information Systems, Vol. 12, No. 1, p. 5, SPIE International Technical Group Newsletter, April 2001.
R	Chua, et al., "Low-Threshold 1.57- $\mu$ m VC-SEL's Using Strain-Compensated Quantum Wells and Oxide/Metal Backmirror," IEEE Photonics Technology Letters, Vol. 7, No. 5, pp. 444-446, May 1995.
R	Chua, et al., "Planar Laterally Oxidized Vertical-Cavity Lasers for Low-Threshold High-Density Top-Surface-Emitting Arrays," IEEE Photonics Technology Letters, Vol. 9, No. 8, August 1997, pp. 1060-1062.
R	Cox, J. A., et al., "Guided Mode Grating Resonant Filters for VCSEL Applications," <u>Proceedings of the SPIE</u> , The International Society for Optical Engineering, Diffractive and Holographic Device Technologies and Applications V, San Jose, California, Vol. 3291, January 28-29, 1998, pp. 70-71.
R	Farrier, Robert G., "Parametric Control for Wafer Fabrication: New CIM Techniques for Data Analysis," Solid State Technology, September 1997, pp. 99-105.
R	Fushimi, et al., "Degradation Mechanism in Carbon-Doped GaAs Minority-Carrier Injection Devices," 34 <sup>th</sup> Annual IRPS Proceedings, Dallas, TX., April 29-May 2, 1996, 8 pages.
R	G.G. Ortiz, et al., "Monolithic Integration of In <sub>0.2</sub> Ga <sub>0.8</sub> As Vertical Cavity Surface-Emitting Lasers with Resonance-Enhanced Quantum Well Photodetectors," <u>Electronics Letters</u> , Vol. 32, No. 13, June 20, 1996, pp. 1205-1207.

EXAMINER <i>Rug 7/8/96</i>	DATE CONSIDERED <i>6/21/08</i>
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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	Applicant(s) <b>Bo Su Chen</b>	
	Filing Date <b>02/17/2004</b>	Group Art Unit <b>2874 2883</b>

*Examiner Initial	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
<i>h</i>	G. Shtengel, et al., "High-Speed Vertical-Cavity Surface-Emitting Lasers," <u>Photonics Technology Letters</u> , Vol. 5, No. 12, December 1993, pp. 1359-1361.
<i>R</i>	Geib, et al., "Comparison of Fabrication Approaches for Selectively Oxidized VCSEL Arrays," Proceeding of SPIE, Vol. 3946, 2000, pp. 36-40.
<i>R</i>	Graf, Rudolph, <u>Modern Dictionary of Electronics</u> , 6 <sup>th</sup> ed., Indiana: Howard W. Sams & Company, 1984, p. 694.
<i>R</i>	Guenter, et al., "Reliability of Proton-Implanted VCSELs for Data Communications," Invited Paper, <u>SPIE</u> , Vol. 2683, OE LASE 96; Photonics West: Fabrication, Testing and Reliability of Semiconductor Lasers, (SPIE, Bellingham, WA 1996).
<i>R</i>	Guenter, et al., "Commercialization of Honeywell's VCSEL Technology: Further Developments," Proceedings of the SPIE, Vol. 4286, GSPIE 2000, 14 pages.
<i>R</i>	Hadley, et al., "High-Power Single Mode Operation from Hybrid Ion Implanted/Selectively Oxidized VCSELs," 13 <sup>th</sup> Annual Meeting IEEE Lasers and Electro-Optics Society 2000 Annual Meeting (LEOS 2000), Rio Grande, Puerto Rico, pp. 804-805.
<i>R</i>	Hawthorne, et al., "Reliability Study of 850 nm VCSELs for Data Communications," IEEE, May 1996, pp. 1-11.
<i>h</i>	Herrick, et al., "Highly Reliable Oxide VCSELs Manufactured at HP/Agilent Technologies," Invited Paper, Proceedings of SPIE, Vol. 3946, 2000, pp. 14-19.
<i>R</i>	Hibbs-Brenner, et al., "Performance, Uniformity and Yield of 850nm VCSELs Deposited by MOVPE," <u>IEEE Photonics Technology Letters</u> , Vol. 8, No. 1, January 1996, pp. 7-9.
<i>h</i>	Hideaki Saito, et al., "Controlling Polarization of Quantum-Dot Surface-Emitting Lasers By Using Structurally Anisotropic Self-Assembled Quantum Dots," American Institute of Physics, <u>Applied Physics Letters</u> 71 (5), August 4, 1997, pp. 590-592.
<i>h</i>	Hornak, et al., "Low-Temperature (10K-300K) Characterization of MOVPE-Grown Vertical-Cavity Surface-Emitting Lasers," <u>Photonics Technology Letters</u> , Vol. 7, No. 10, October 1995, pp. 1110-112.
<i>R</i>	Huffaker, et al., "Lasing Characteristics of Low Threshold Microcavity Layers Using Half-Wave Spacer Layers and Lateral Index Confinement," <u>Applied Physics Letters</u> , Vol. 66, No. 14, April 3, 1995, pp. 1723-1725.
<i>R</i>	Jewell, et al., "Surface Emitting Microlasers for Photonic Switching & Intership Connections," <u>Optical Engineering</u> , Vol. 29, No. 3, March 1990, pp. 210-214.
<i>h</i>	Jiang, et al., "High-Frequency Polarization Self-Modulation in Vertical-Cavity Surface-Emitting Lasers," <u>Applied Physics Letters</u> , Vol. 63, No. 26, December 27, 1993, pp. 2545-2547.
<i>h</i>	K.L. Lear, et al., "Selectively Oxidized Vertical Cavity Surface-Emitting Lasers with 50% Power Conversion Efficiency," <u>Electronic Letter</u> , Vol. 31, No. 3, February 2, 1995, pp. 208-209.

EXAMINER <i>Roger J. [Signature]</i>	DATE CONSIDERED <i>6/21/06</i>
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP Section 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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*Examiner Initial	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
<i>R</i>	Kash, et al., "Recombination in GaAs at the AlAs Oxide-GaAs Interface," <u>Applied Physics Letters</u> , Vol. 67, No. 14, October 2, 1995, pp. 2022-2024.
<i>R</i>	Kishino, et al., "Resonant Cavity-Enhanced (RCE) Photodetectors," <u>IEEE Journal of Quantum Electronics</u> , Vol. 27, No. 8, pp. 2025-2034.
<i>R</i>	Koley, B., et al., "Dependence of Lateral Oxidation Rate on Thickness of AlAs Layer of Interest as a Current Aperture in Vertical-Cavity Surface-Emitting Laser Structures," <u>Journal of Applied Physics</u> , Vol. 84, No. 1, July 1, 1998, pp. 600-605.
<i>R</i>	Kuchibhotla, et al., "Low-Voltage High Gain Resonant-Cavity Avalanche Photodiode," <u>IEEE Photonics Technology Letters</u> , Vol. 3, No. 4, pp. 354-356.
<i>R</i>	Lai, et al., "Design of a Tunable GaAs/AlGaAs Multiple-Quantum-Well Resonant Cavity Photodetector," <u>IEEE Journal of Quantum Electronics</u> , Vol. 30, No. 1, pp. 108-114.
<i>R</i>	Lee, et al., "Top-Surface Emitting GaAs Four-Quantum-Well Lasers Emitting at 0-85 um," <u>Electronics Letters</u> , Vol. 24, No. 11, May 24, 1990, pp. 710-711.
<i>R</i>	Lehman, et al., "High Frequency Modulation Characteristics of Hybrid Dielectric/AlGaAs Mirror Singlemode VCSELs," <u>Electronic Letters</u> , Vol. 31, No. 15, July 20, 1995, pp. 1251-1252.
<i>R</i>	Maeda, et al., "Enhanced Glide of Dislocations in GaAs Single Crystals by Electron Beam Irradiation," <u>Japanese Journal of Applied Physics</u> , Vol. 20, No. 3, March 1981, pp. L165-L168.
<i>R</i>	Magnusson, "Integration of Guided-Mode Resonance Filters and VCSELs," Electro-Optics Research Center, Department of Electrical Engineering, University of Texas at Arlington, May 6, 1997.
<i>R</i>	Martinsson, et al., "Transverse Mode Selection in Large-Area Oxide-Confined Vertical-Cavity Surface-Emitting Lasers Using a Shallow Surface Relief," <u>IEEE Photonics Technology Letters</u> , 11(12), 1536-1538, (1999).
<i>R</i>	Miller, et al., "Optical Bistability Due to Increasing Absorption," <u>Optics Letters</u> , Vol. 9, No. 5, May 1984, pp. 162-164.
<i>R</i>	Min Soo Park and Byung Tae Ahn, "Polarization Control of Vertical-Cavity Surface-Emitting Lasers by Electro-Optic Birefringence," <u>Applied Physics Letters</u> , Vol. 76, No. 7, February 14, 2000, pp. 813-815.
<i>R</i>	Morgan, et al., "200 C, 96-nm Wavelength Range, Continuous-Wave Lasing from Unbonded GaAs MOVPE-Grown Vertical Cavity Surface-Emitting Lasers," <u>IEEE Photonics Technology Letters</u> , Vol. 7, No. 5, May 1995, pp. 441-443.
<i>R</i>	Morgan, et al., "High-Power Coherently Coupled 8x8 Vertical Cavity Surface Emitting Laser Array," <u>Applied Physics Letters</u> , Vol. 61, No. 10, September 7, 1992, pp. 1160-1162.
<i>R</i>	Morgan, et al., "Hybrid Dielectric/AlGaAs Mirror Spatially Filtered Vertical Cavity Top-Surface Emitting Laser," <u>Applied Physics Letters</u> , Vol. 66, No. 10, March 6, 1995, pp. 1157-1159.

EXAMINER <i>Ryan Igler</i>	DATE CONSIDERED <b>6/21/05</b>
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	Filing Date <b>02/17/2004</b>	Group Art Unit <b>2874 2867</b>

*Examiner Initial	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
<i>PC</i>	Morgan, et al., "Novel Hybrid-DBR Single-Mode Controlled GaAs Top-Emitting VCSEL with Record Low Voltage," 2 pages, dated prior to December 29, 2000.
<i>PC</i>	Morgan, et al., "One Watt Vertical Cavity Surface Emitting Laser," <u>Electronic Letter</u> , Vol. 29, No. 2, pp. 206-207, January 21, 1993.
<i>PC</i>	Morgan, et al., "Producible GaAs-Based MOVPE-Grown Vertical-Cavity Top-Surface Emitting Lasers with Record Performance," <u>Electronic Letters</u> , Vol. 31, No. 6, March 16, 1995, pp. 462-464.
<i>PC</i>	Morgan, et al., "Progress and Properties of High-Power Coherent Vertical Cavity Surface Emitting Laser Arrays," <u>SPIE</u> , Vol. 1850, January 1993, pp. 100-108.
<i>PC</i>	Morgan, et al., "Progress in Planarized Vertical Cavity Surface Emitting Laser Devices and Arrays," <u>SPIE</u> , Vol. 1562, July 1991, pp. 149-159.
<i>PC</i>	Morgan, et al., "Spatial-Filtered Vertical-Cavity Top Surface -Emitting Lasers," <u>CLEO</u> , 1993, pp. 138-139.
<i>PC</i>	Morgan, et al., "Submilliamp, Low-Resistance, Continuous-Wave, Single-Mode GaAs Planar Vertical-Cavity Surface Emitting Lasers," Honeywell Technology Center, June 6, 1995.
<i>PC</i>	Morgan, et al., "Transverse Mode Control of Vertical-Cavity Top-surface Emitting Lasers," <u>IEEE Photonics Technology Letters</u> , Vol. 4, No. 4, April 1993, pp. 374-377.
<i>PC</i>	Morgan, et al., "Vertical-Cavity Surface-Emitting Laser Arrays," Invited Paper, <u>SPIE</u> , Vol. 2398, February 6, 1995, pp. 65-93.
<i>PC</i>	Morgan, et al., "Vertical-Cavity Surface Emitting Lasers Come of Age," Invited Paper, <u>SPIE</u> , Vol. 2683, 0-8194-2057, March 1996, pp. 18-29.
<i>PC</i>	Morgan, et al., "High-Performance, Producible Vertical Cavity Lasers for Optical Interconnects," <u>High Speed Electronics and Systems</u> , Vol. 5, No. 4, December 1994, pp. 65-95.
<i>PC</i>	Naone, R. L., et al., "Tapered-Apertures for High-Efficiency Miniature VCSELs," <u>LEOS Newsletter</u> , Vol. 13, No. 4, August 1999, pp. 1-5.
<i>PC</i>	Nugent, et al., "Self-Pulsations in Vertical-Cavity Surface-Emitting Lasers," <u>Electronic Letters</u> , Vol. 31, No. 1, January 5, 1995, pp. 43-44.
<i>PC</i>	Oh, T. H., et al., "Single-Mode Operation in Antiguided Vertical-Cavity Surface-Emitting Laser using a Low-Temperature Grown AlGaAs Dielectric Aperture," <u>IEEE Photonics Technology Letters</u> , 10(8), 1064-1066 (1998).
<i>PC</i>	Osinski, et al., "Temperature and Thickness Dependence of Steam Oxidation of AlAs in Cylindrical Mesa Structure," <u>IEEE Photonics Technology Letters</u> , Vol. 13, No. 7, July 2001, pp. 687-689.

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*Examiner Initial	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
<i>PS</i>	Peck, D. Stewart, "Comprehensive Model for Humidity Testing Correlation," IEEE/IRPS, 1986, pp. 44-50.
<i>JK</i>	Ries, et al., "Visible-Spectrum ( $\lambda=650\text{nm}$ ) Photopumped (pulsed, 300 K) Laser Operation of a Vertical-Cavity AlAs-AlGaAs/InAlP-InGaP Quantum Well Heterostructure Utilizing Native Oxide Mirrors," <u>Applied Physics Letters</u> , Vol. 67, No. 8, August 21, 1995, pp. 1107-1109.
<i>PS</i>	S.S. Wang and R. Magnusson, "Multilayer Waveguide-Grating Filters," <u>Applied Optics</u> , Vol. 34, No. 14, 1995, pp. 2414-2420.
<i>PS</i>	S.S. Wang and R. Magnusson, "Theory and Applications of Guided-Mode Resonance Filters," <u>Applied Optics</u> , Vol. 32, No. 14, 1993, pp. 2606-2613.
<i>PS</i>	Sah, et al., "Carrier Generation and Recombination in P-N Junctions and P-N Junction Characteristics," <u>Proceedings of the IRE</u> , September 1957, pp. 1228-1243.
<i>PS</i>	Schubert, "Resonant Cavity Light-Emitting Diode," <u>Applied Physics Letters</u> , Vol. 60, No. 8, February 24, 1992, pp. 921-923.
<i>PS</i>	Shi, et al., "Photoluminescence Study of Hydrogenated Aluminum Oxide-Semiconductor Interface," <u>Applied Physics Letters</u> , Vol. 70, No. 10, March 10, 1997, pp. 1293-1295.
<i>PS</i>	Smith, R. E., et al., "Polarization-Sensitive Subwavelength Antireflection Surfaces on a Semiconductor for 975 NM," <u>Optics Letters</u> , Vol. 21, No. 15, August 1, 1996, pp. 1201-1203.
<i>PS</i>	Spicer, et al., "The Unified Model for Schottky Barrier Formation and MOS Interface States in 3-5 Compounds," <u>Applications of Surface Science</u> , Vol. 9, 1981, pp. 83-01.
<i>PS</i>	Suning Tang, et al., "Design Limitations of Highly Parallel Free-Space Optical Interconnects Based on Arrays of Vertical Cavity Surface-Emitting Laser Diodes, Microlenses and Photodetectors," <u>Journal of Lightwave Technology</u> , Vol. 12, No. 11, November 1, 1994, pp. 1971-1975.
<i>PS</i>	T. Mukaihara, "Polarization Control of Vertical-Cavity Surface-Emitting Lasers by a Birefringent Metal/Semiconductor Polarizer Terminating a Disturbed Bragg Reflector," <u>Tokyo Institute of Technology, Precision and Intelligence Laboratory</u> , pp. 183-184.
<i>PS</i>	Tao, Andrea, "Wet-Oxidation of Digitally Alloyed AlGaAs," <u>National Nanofabrication Users Network, Research Experience for Undergraduates 2000</u> , 2 pages.
<i>PS</i>	Tautm, et al., "Commercialization of Honeywell's VCSEL Technology," <u>Published in Proceedings for the SPIE</u> , Vol. 3946, SPI, 2000, 12 pages.
<i>PS</i>	Mukaihara, et al., "A Novel Birefringent Disturbed Bragg Reflector Using a Metal/Dielectric Polarizer for Polarization Control of Surface-Emitting Lasers," <u>Japan J. Appl. Phys.</u> , Vol. 33, (1994), Part 2, No. 2B, February 15, 1994, pp. L227-L229.
<i>PS</i>	Tu, Legacy interface-Wei et al., "Transparent Conductive Metal-Oxide Contacts in Vertical-Injection Top-Emitting Quantum Well Lasers," <u>Applied Physics Letters</u> , 58 (8), February 25, 1991, pp. 790-792.

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*Examiner Initial	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
	Wieder, H. H., "Fermi Level and Surface Barrier of Ga <sub>1-x</sub> In <sub>x</sub> As Alloys," <u>Applied Physics Letters</u> , Vol. 38, No. 3, February 1, 1981, pp. 170-171.
	Wipiejewski, et al., "VCSELs for Datacom Applications," Invited Paper, Part of the SPIE Conference on Vertical-Cavity Surface-Emitting Lasers III, San Jose, California, SPIE, Vol. 3627, January 1999, pp. 14-22.
	Y.M. Yang, et al., "Ultralow Threshold Current Vertical Cavity Surface Emitting Lasers Obtained with Selective Oxidation," <u>Electronic Letter</u> , Vol. 31, No. 11, May 25, 1995, pp. 886-888.
	Yablonovitch, et al., "Photonic Bandgap Structures," <u>J. Opt. Soc. Am. B.</u> , Vol. 10, No. 2, February 1993, pp. 283-295.
	Young, et al., "Enhanced performance of Offset-Gain High Barrier Vertical-Cavity Surface-Emitting Lasers," <u>IEEE J. Quantum Electron.</u> , Vol. 29, No. 6, June 1993, pp. 2013-2022.
	U.S. Patent Application Serial No. 09/751,422, filed December 29, 2000, entitled "Resonant Reflector for Use with Optoelectronic Devices."
	U.S. Patent Application Serial No. 09/751,423, filed December 29, 2000, entitled "Spatially Modulated Reflector for an Optoelectronic Device."
	U.S. Patent Application Publication, Publication No. US 2002/0154675 A1, entitled "Reliability-Enhancing Layers for Vertical Cavity Surface Emitting Lasers," Publication dated October 24, 2002.
	Athale, et al., "Incoherent Optical Image Processing with Acousto-Optic Pupil-Plane Filtering" <u>Applied Optics</u> , Vol. 34, No. 2, January 10, 1995, pp. 246-280.

EXAMINER 	DATE CONSIDERED <b>6/21/05</b>
--	--------------------------------

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